10-649298 Page 2

10 11 12 13 14 23 24 26 27 28 30 31 32
ring nodes:
1 2 3 4 5 6 7 8 9 16 17 18 19 20 21
chain bonds:
4-10 5-11 8-31 9-30 11-12 11-13 13-14 14-18 16-27 17-28 19-23 20-24
21-26 31-32
ring bonds:
1-2 1-6 2-3 2-7 3-4 3-9 4-5 5-6 7-8 8-9 16-17 16-21 17-18 18-19 19-20
20-21
exact/norm bonds:
1-2 1-6 2-3 3-4 4-5 4-10 5-6 9-30 11-12 11-13 13-14 16-27 17-28 19-23
20-24 21-26

exact bonds : 2-7 3-9 5-11 7-8 8-9 8-31 14-18 31-32 normalized bonds :

16-17 16-21 17-18 18-19 19-20 20-21

isolated ring systems :

containing 1 :

chain nodes :

G1:H,C1,Br,F,CN,NO2,C

G2:C,H

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom 23:CLASS 24:CLASS 26:CLASS 27:CLASS 28:CLASS 30:CLASS 31:CLASS 32:CLASS

L3 STRUCTURE UPLOADED

=> d

L3 HAS NO ANSWERS

L3 STR

14 ANSWERS

G1 H, C1, Br, F, CN, NO2, C G2 C,H

Structure attributes must be viewed using STN Express query preparation.

=> s 13 ful

FULL SEARCH INITIATED 09:02:21 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 1294 TO ITERATE

1294 ITERATIONS 100.0% PROCESSED SEARCH TIME: 00.00.01

14 SEA SSS FUL L3 L4

=> fil caplus COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 155.42 312.31

FILE 'CAPLUS' ENTERED AT 09:02:24 ON 03 SEP 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 3 Sep 2004 VOL 141 ISS 11

FILE LAST UPDATED: 2 Sep 2004 (20040902/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification. $\begin{tabular}{ll} \end{tabular} \label{table_equation} \end{tabular}$

=> s 14

L5 3 L4

=> d ibib abs hitstr tot

L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:203665 CAPLUS
100:220346 CAPLUS
11TILE: Method using beterocyclic carboxamide compounds for preventing or treating atherosclerosis or restenosis Wathen, Michael W.; Wathen, Lynne K.
PATENT ASSIGNEE(S): PATENT ASSIGNEE(S): Pharmacia & Upjohn Company, USA
SOURCE: COPEN: PIXXD2
DOCUMENT TYPE: Patent DOCUMENT TYPE: LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION: Patent English PATENT NO. KIND DATE APPLICATION NO. DATE

WO 2004019939 A1 20040311 WO 2003-US26973 20030828

N: AR, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, AL, CH, CM, GM, HR, HU, ID, IL, IM, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PC, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TM, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, ZM, AM, AZ, BY, KG, KZ, MD, RU

RW: GR, CM, KE, LS, MM, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, IT, LE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GM, ML, MR, ME, SN, TD, TG

US 2004102473 A1 20040527 US 2003-651216 20030828

PRIORITY APPLN. INFO: PATENT NO. KIND DATE APPLICATION NO. DATE OTHER SOURCE(S): MARPAT 140:229446

The invention provides a method of treating atherosclerosis or restenosis in a mammal which comprises administering an effective amount of a thieno[2,3-h]pyridine carboxamide derivative or a pyrrolo[3,2,1-i]]quinoline carboxamide derivative or 292143-78-3 292143-85-2 292143-86-3 292143-94-3 292144-00-4 292144-31-1

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (heterocyclic carboxamide compds. for preventing or treating atherosclerosis or restenosis)

RN 292143-78-3 CAPLUS

CN Thieno[2,3-h]pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl]-7-ethyl-4,7-dihydro-2-(3-hydroxypropyl)-4-oxo- (9CI) (CA INDEX NAME)

ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN L5

(CH2)3-OH

292144-00-4 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl]-4,7-dihydro-2-(3-hydroxypropyl)-7-(1-methylethyl)-4-oxo- (9CI) (CA INDEX NAME)

292144-31-1 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl]-7-[2-(diethylamino}ethyl]-4,7-dihydro-2-(3-hydroxypropyl)-4-oxo- [9CI) (CAINDEX NAME)

$$\begin{array}{c} \text{C1} \\ \text{CH}_2\text{-NH-C} \\ \text{Et}_2\text{N-CH}_2\text{-CH}_2 \end{array}$$

REFERENCE COUNT: THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

292143-85-2 CAPLUS Thieno[2,3-b]pyridine-5-carboxamide, N-{(4-chlorophenyl)methyl]-7-ethyl-4,7-dihydro-2-(4-hydroxybutyl)-4-oxo- (9C1) (CA INDEX NAME)

292143-86-3 CAPLUS
Thieno(2,3-b]pyridine-5-carboxamide, N-[{4-chlorophenyl}methyl]-4,7-dihydro-7-(2-hydroxyethyl)-2-(3-hydroxypropyl)-4-oxo-(9CI) (CA INDEX NAME)

292143-94-3 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl]-4,7dihydro-2-(3-hydroxypropyl)-7-methyl-4-oxo- (9C1) (CA INDEX NAME)

L5 ANSWER 2 OF 3
ACCESSION NUMBER: 2000:646018 CAPLUS
DOCUMENT NUMBER: 133:222607
TITLE: Preparation of
4-oxo-4,7-dihydro-thieno(2,3-b)pyridine-5-carboxamides as antiviral agents
SURCE: Schutte, Mark E.; Cudahy, Michele M.; Scott, Allen
PATENT ASSIGNEE(S): PATENT AS

DOCUMENT TYPE: FAMILY ACC. NUM. COUNT:

												LICAT							
										WO 2000-US5937									
	WO 2000053610																		
		w:									BG.	, BR,	BY,	CA,	CH,	ÇN	, CR,	CU,	
			CZ.	DE.	DK.	DM.	EE,	ES,	FI.	GB,	GD.	, GE,	GH.	GM,	HR,	HU	, ID,	IL.	
			IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC	, LK,	LR,	LS,	LT,	LU	, LV,	MA,	
			MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL	, PT,	RO,	RU,	SD,	SE	, SG,	SI,	
			SK.	SL,	TJ,	TM,	TR,	TT,	TZ,	UA,	UG	, US,	UZ,	VN,	YU,	ZA	, ZW,	AM,	
			AZ,	BY,	KG,	KZ,	MD,	RU,	ΤJ,	TM									
		RW:	GH,	GM,	KE,	LS,	MW,	SD,	SL,	SZ,	TZ,	, UG,	ZW,	AT,	BE,	CH	, CY,	DE,	
			DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	, MC,	NL,	PΤ,	SE,	BF	, BJ,	CF,	
												, SN,							
	US	6239142				B1 20010529			US 2000-521027						20000307				
	NZ	513758				A 20010928			NZ 2000-513758						20000307				
											EP :	2000-	9137	86			20000	307	
	EP		279																
		R:							FR,	GB,	GR,	, IT,	LI,	LU,	NL,	SE	, MC,	PT,	
			IE,	SI,	LT,	LV,	FI,	RO											
	BR	2000	0086	04		A		2002	0416		BR :	2000- 2000- 2000- 2000- 2000- 2001-	8804				20000		
	ΑT	2262	80			E		2002	1115		AT :	2000-	9137	96			20000		
	JP	2002	5391	30		Т2		2002	1119		JP :	2000-	6040	46			20000		
	ES	2184	705			Т3		2003	0416		ES :	2000-	9137	86			20000		
	AU	7598	75			B2		2003	0501		AU :	2000-	3516	2			20000	307	
	AU	2000	0351	62		AS		2000	0928										
	US	2002	0069	31		Al		2002	0117		US .	2001-	8243	34			20010	402	
	US	6495	683 0072			B2		2002	1217					•			20010		
	ZA	2001	.0072	55		A		2002	1202		ZA .	2001- 2001-	1255				20010		
			LN.			Α.		2001	1108		NO.	2001-	4303	con		n	19990		
KIO	KITI	APE	LIN.	TNEO	. :						US.	1999-	1236	OUP		٢	19990	309	
											US :	2000-	5210	27		A3	20000	307	
											wo :	2000-	US59	37	,	w	20000	307	

OTHER SOURCE(S): MARPAT 133:222607 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

$$\mathbb{R}^{3} \xrightarrow{\begin{array}{c} 0 \\ 1 \\ 1 \\ 1 \\ 1 \end{array}} \stackrel{0}{\underset{H}{\bigcap}} \stackrel{0}{\underset{H}{\underset{H}{\bigcap}} \stackrel{0}{\underset{H}{\bigcap}} \stackrel{0}{\underset{H}{\bigcap}} \stackrel{0}{\underset{H}{\bigcap}} \stackrel{0}{\underset{H}{\bigcap}}$$

The title compds. (I; R1 = C1, Br, CN, etc.; R2 = H, R5, NR7R8, etc.; R3

H, halo, aryl, etc.; R4 = H, halo, alkyl, etc.; R5 = heterocyclyl bound via a carbon atom, (un)saturated (un)substituted alkyl, (un)saturated (un)substituted cycloalkyl, etc.; R7, R8 = H, aryl, (un)saturated (un)substituted alkyl; NR7R8 form a heterocyclyl) and their pharmaceutically acceptable salts, useful in preventing or treating a herpesvirus infection, were prepared Thus, reacting Et droxythieno(2,3-b)pyridine-5-carboxylate with 4-chlorobenzylamine afforded 45% I [R1 =

R2 = H; R3, R4 = H] which showed IC50 of 28.9 μM against HCMV

RZ = H; K3, K4 = H; Which showed 1630 polymerase. 292143-78-3P 292143-85-2P 292143-86-3P 292144-00-4P 292144-31-1P

292144-31-19
292144-31-19
RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
study, unclassified); SFN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of
4-oxo-4,7-dihydro-thieno[2,3-b]pyridine-5-carboxamides as
antiviral agents)
RN 292[43-78-3 CAPILIS
CN Thieno[2,3-b]pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl]-7-ethyl4,7-dihydro-2-(3-hydroxypropyl)-4-oxo- (9CI) (CA INDEX NAME)

292143-85-2 CAPLUS Thieno[2,3-b]pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl]-7-ethyl-4,7-dihydro-2-(4-hydroxybutyl)-4-oxo- (9CI) (CA INDEX NAME)

L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

292144-00-4 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl]-4,7-dihydro-2-(3-hydroxypropyl)-7-(1-methylethyl)-4-oxo-(9CI) (CA INDEX NAME)

292144-31-1 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl]-7-[2-(diethylamino)ethyl]-4,7-dihydro-2-(3-hydroxypropyl)-4-oxo- (9CI) (CA INDEX NAME)

L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

292143-86-3 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl]-4,7dihydro-7-(2-hydroxyethyl)-2-(3-hydroxypropyl)-4-oxo-(9CI) (CA INDEX NAME)

292143-88-5 CAPLUS
Thleno[2,3-b]pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl)-7-[2-(diethylamino)ethyl]-4,7-dihydro-2-(3-hydroxypropyl)-4-oxo-,
monohydrochloride (9CI) (CA INDEX NAME)

• HCl

292143-94-3 CAPLUS

Thieno(2, 3-b)pyridine-5-carboxamide, N-[(4-chlorophenyl)methyl]-4,7-dihydro-2-(3-hydroxypropyl)-7-methyl-4-oxo- (9CI) (CA INDEX NAME)

L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:
1591:632279 CAPLUS
115:232279 CAPL

LANGUAGE: FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

PA	TENT NO			KIN	DATE	DATE		PLICAT			DATE		
EP	443568		-	Al	1991	0828	EP	1991-	10251	3			19910221
EP	443568			B1	1996	0612							
	R: A	T, BE,	CH,	DE,	DK, ES,	FR,	GB, GI	₹, IT,	LI,	LU,	NL,	SE	3
CA	203661	8		AA	1991	0823	CA	1991-	20366	18			19910219
CA	203661	8		С	2002	1029							
JP	070619	86		A2	1995	0307	JP	1991-	27273	3			19910221
JP	303574	5		B2	2000	0424							
AT	139233			E	1996	0615	AT	1991-	10251	13			19910221
US	528466	1		A	1994	0208	US	1993-	47368	3			19930419
PRIORITY	APPLN	. INFO).:				JP	1990-	42125	5	A		19900222
							JP	1991-	3958		А		19910117
							us	1991-	65705	51	В	1	19910219

OTHER SOURCE(S):

MARPAT 115:232279

ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)
Title compds. [I; R1, R2 = H, halo, cyano, NO2, acylamino, (substituted)
hydrocarbyl; R3 = H, (substituted) alkyl, alkenyl, COX; X = H, alkoxy, OH,

halo, amino; R4 = H, halo, NO2; R5 = residue capable of forming an anion or convertible to an anion; R6 = H, (substituted) alkyl, alkenyl; R7 = (substituted) hydrocarbyl; A = bond, spacer group; n = 1,2; W = CR3:CR6, NRTCO), were prepared Thus, Et Z-ethyl-4-hydroxythieno(2,3-b)pyridine-5-carboxylate, 4-(2'-cyanophenyl)benzyl chloride, and K2CO3 were stirred at 90° for 2 h to give 60% coupling product, which was stirred with NAM3 and NHCl in DMF at 110° to give 13% title compound II. Several I at 30 mg/kg orally in rats inhibited the pressor response of otensin

angiotensin

II by 270%. Tablets were prepared containing II.

II by 270%. Tablets were prepared containing II.

II 137069-72-89 137069-83-19 137069-84-2P
137069-85-3P 137069-86-4P 137069-88-6P
137069-89-7P
RL: BBC (Biological activity or effector, except adverse); BSU
(Biological

137069-83-1 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, 2-ethyl-N-[(4-fluorophenyl)methyl]4,7-dihydro-4-oxo-7-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl](9C1) (CA INDEX NAME)

L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

137069-84-2 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, 2-ethyl-N-[(3-fluorophenyl)methyl]-4,7-dihydro-4-oxo-7-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]-(9CI) (CA INDEX NAME)

137069-85-3 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, 2-ethyl-4,7-dihydro-4-oxo-N-(1-phenylethyl)-7-{[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]- (9CI)(CA INDEX NAME)

ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN (Continued)

137069-86-4 CAPLUS
Thieno[2, 3-b]pyridine-5-carboxamide, 2-ethyl-N-[(2-fluorophenyl)methyl]4,7-dihydro-4-oxo-7-[{2'-(lH-tetrazol-5-yl){1,1'-biphenyl}-4-yl]methyl}(9CI) (CA INDEX NAME)

137069-88-6 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, 2-ethyl-4,7-dihydro-N-[(4-methylphenyl)methyl)-4-oxo-7-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]- [9CI) (CA INDEX NAME)

L5 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

137069-89-7 CAPLUS
Thieno[2,3-b]pyridine-5-carboxamide, 2-ethyl-4,7-dihydro-N-[(2-methylphenyl)methyl]-4-oxo-7-[[2'-(1H-tetrazol-5-yl)[1,1'-biphenyl]-4-yl]methyl]- (9CI) (CA INDEX NAME)